Plan to Minimize Impacts on Adjacent Landowners for the Napa River/Napa Creek Flood Protection Project

Program Background

The Flood Protection Corridor Program (FPCP) was created by the Safe Drinking Water, Clean Water, Watershed Protection and Flood Protection Act of March 2000 (Proposition 13). The Program is authorized to fund projects providing nonstructural approaches to flood management, including the acquisition and restoration of wildlife habitat, and agricultural land preservation. Proposition 13 requires that the grant applicant, in conjunction with the Department of Water Resources (DWR), develop a plan to minimize the impacts on adjacent landowners prior to acquiring any interest in land.

California Water Code section 79041 states:
"Prior to acquiring an easement or other interest in land pursuant to this article, the project shall include a plan to minimize the impact on adjacent landowners. The plan shall include but not be limited to, an evaluation of the impact on floodwaters, the structural integrity of affected levees, diversion facilities, customary agricultural husbandry practices, and timber extraction operations, and an evaluation with regard to the maintenance required of any facilities that are proposed to be constructed or altered."

Project Description

The U.S. Army Corps of Engineers (Corps) and the Napa County Flood Control and Water Conservation District (District) are implementing the Napa River/Napa Creek Flood Protection Project (Project) along approximately 7 miles of the Napa River from the Butler Bridge (Highway 29) near Horseshoe Bend north to Trancas Street, and two-thirds of a mile of channel modifications for Napa Creek in Napa County. The objective of the Project is to provide an economically feasible and environmentally sensitive method to protect the City of Napa from 100-year storm events. Flood protection and habitat enhancement are achieved by using environmentally beneficial methods, such as the creation of wetlands, marshplain and floodplain terraces, selective removal of existing levees, use of open space as the floodway, setback levees, bypass channels and biotechnical bank stabilization. Environmentally damaging measures, such as deepening the river by excessive dredging, are avoided.

In order to achieve the objective of flood protection and habitat enhancement, over 300 parcels of land must be acquired. One of these parcels, the Napa Sanitation District (NSD) property located at 950 West Imola Avenue (APN 005-180-007), will be acquired using funds from the FPCP grant together with funding from other sources. The NSD property, which ceased operations in the late 1980s or early 1990s, consists

of a total of 42.01 acres. The Project will acquire 28.78 acres for various flood project uses. However, for the purposes of the FPCP grant, funds will be applied toward the purchase of 24.14 acres, which will be developed into marshplain and floodplain to increase the conveyance capacity of the river channel. Levees will be constructed outside of this excavation to complete protection for developed areas to the 100-year level.

The marshplain at an elevation of 0.7 NGVD and floodplain at elevations ranging from 6.3 to 6.8 NGVD will be constructed in an area that is currently occupied by an approximately 1.9-acre landfill consisting of “construction debris”, four sludge ponds, and a 1.96-acre dredged disposal site. The restoration of the marshplain and floodplain terraces will require the removal of approximately 200,000 cubic yards of soil. Extensive investigations have been conducted in this area of the NSD site as per the requirements of the Waste Discharge Requirements issued by Regional Water Quality Control Board (RWQCB) as well as by many parties for various purposes. A draft soil characterization report, prepared by Montgomery Watson Harza (MWH) on behalf of the Corps, was submitted to the RWQCB in March 2004. The report detailed the characteristics of the existing soil, and categorized the beneficial reuse and disposal of the approximately 200,000 cubic yards that will be excavated from the NSD property. In lieu of a Phase I Environmental Site Assessment, the above mentioned report was reviewed and approved by the Department of Water Resources on September 29, 2004 (Memorandum from Derrick Adachi to Diane Yasui)

The marshplain and floodplain terraces will be restored as follows:

Marshplain Terrace - The marshplain terrace will be emergent marsh and will most likely support bulrush, cattails, and tules.

Floodplain Terrace (Riparian Strip) - A strip of riparian habitat will be developed in the transition from the marshplain terrace to the floodplain terrace and then 30 feet back into the floodplain terrace. Natural processes will be allowed to sculpt this area. Some of the types of species in this riparian strip would be Fremont Cottonwood, Oregon Ash, California Bay, Coyote Bush, Box Elder, and Wild Rose and transition from shrubs to trees with accompanying under story. This strip will be planted to accomplish the riparian mitigation required for the Project.

Floodplain Terrace (Oak Upland Strip) - Another heavily vegetated strip may be planted at the edge of the floodplain terrace where it transitions to natural ground. This strip will most likely take on the characteristics of an Oak Upland. Additional analysis will be done to develop ways trees can be planted in the levees by either placing additional soil material on the landside of the levee and planting trees in this soil or planting trees in containers within the levee to limit the spread of roots.

Floodplain Terrace (Grassland) - The remainder of the floodplain terrace is proposed to be grassland with no shrubs and only scattered trees. It is envisioned that there would

be no more than 10 trees per acre and these could be no closer than 50 feet to one another.

The creation of approximately 2,000 linear feet of marshplain and floodplain on the NSD property along the Napa River is a small segment to the overall Project, which is approximately 7 miles along the Napa River. The NSD property has ceased operations as a waste water treatment plant. Flood protection measures have been/will be implemented in the surrounding areas to this property. To the north and south of the property will be the continuous marshplain and floodplain terraces. A recreation trail will be constructed beyond the floodplain. On the west side of the Napa River, a flood wall as well as a recreation trail will be constructed.

The Project is currently in its fifth year of construction. The basis of project design was evaluated and incorporated into the Final General Design Memorandum (GDM), which was approved and adopted by the Corps in October 1998. Chapters 15 and 16 and Appendix H of the GDM provide the hydrology and hydraulic design of the Project. Additionally, the implementation of the Project was included in both the Final Environmental Impact Report/Statement (FEIR/EIS). The FEIR was circulated twice for public comment, from December 19, 1997 to February 13, 1998, and again in October and November 1998 (although not required), then certified by the District's Board of Directors on May 4, 1999. The Corps certified the FSEIS on June 9, 1999.

A public hearing was held on March 18, 2004 regarding the FPCP grant and the award of the funding.

Evaluation of the Impact on Floodwaters

The net result of the impact on floodwaters of the project is a lowering of flood elevations in the area of the project. Hydrologic routings indicate a slight increase in flood flows for large flows in the project area as demonstrated by Appendix H, Table 5 of the GDM. However, these increases in flood flows are more than compensated for by the increase in river conveyance downstream of the project area and in the project area itself as the river has been or will be widened through the creation of marshplain and floodplain as well as the creation of a dry bypass channel upstream. The water surface elevation with the Project shows the following at New Tulocay Creek (River Station 724), upstream of NSD:

Discharge (cfs)	Existing WS Elevation (ft)	With Project WS Elevation (ft)	Frequency (Approx.)
25,000	12.2	9.7	10 Year
38,000	14.0	12.3	50 Year
44,000	14.9	13.6	100 Year

The existing WS elevations are from the FEMA Flood Insurance Study for the City of Napa. The With-Project WS elevations were generated from the Project hydraulic

modeling conducted by the Corps. Therefore, flood impacts to adjacent properties will be reduced as a result of the project.

Structural Integrity of Affected Levees

No levees currently exist in the project area. The project will construct levees to provide 100-year protection. These levees have been designed with the project conditions as a base condition and will be constructed using specifications developed for Corps structures under rigid quality control.

It is understood by the District and the State that the levees within the NSD property will be certified in accordance with Federal Emergency Management Agency (FEMA) standards by the Corps upon completion of the project. In addition, the City of Napa will file a Letter of Map Revision with the FEMA to revise the flood plain in the areas affected once the project is complete.

Evaluation of Impacts on Diversion Facilities

No diversion facilities exist in the project area.

Current and Historic Agricultural Practices

The project is in the urban limits of the City of Napa and no agriculture is present at the project site or in the vicinity. The NSD operated a waste water treatment facility on the property. A construction debris landfill and sludge ponds are currently located in the areas where marshplain and floodplains will be created.

Evaluation of Impacts on Timber Extraction Operations

No timber is at the project site or in the vicinity.

Evaluation of Impacts to Maintenance

The District, being the local sponsor for flood protection, will be the responsible agency for the operation, maintenance, repair, replacement and rehabilitation (OMRR&R) of the flood measures for the project. The District will also be responsible for preserving and protecting, in perpetuity, the natural and riparian resource values of the mitigation lands, for the sole purpose of mitigating fish and wildlife damages resulting from construction of the project. A conservation easement on the NSD property will be overseen by the Napa County Land Trust or the California Department of Fish and Game.

As a recreation trail will exist east of the created floodplain on the NSD property, the City of Napa will be the local sponsor for recreation and will be the responsible agency for OMRR&R of this property feature as well as for the Project recreation facilities.

In accordance with the Project Cooperation Agreement (PCA) between the Corps and the District and upon completion of construction, it will be the responsibility of both the District and the City to maintain and operate the Project in accordance with federal regulations and guidelines. These responsibilities will be assigned upon completion of the construction contracts and will be documented in operation and maintenance manuals for flood protection measures and recreation developed by the Corps' Sacramento District in accordance with ER 1130-2-303. These manuals will reflect the unique character of the Project and be reviewed both within the Corps and by the District and the City during their development. Based on cooperation with the resource agencies, a Mitigation and Monitoring Plan was developed for the Project. Any changes in OMRR&R practices for either the flood protection measures or recreation features will require written approval from the Corps. The Federal Guide for Operation and Maintenance Requirements is Title 33, Part 208, Flood Control Regulations.